



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

|   |             |                       |                                |                  |
|---|-------------|-----------------------|--------------------------------|------------------|
| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO.            | CONFIRMATION NO. |
| 10/809,768  | 03/24/2004  | Ralph Fritz Zwirrmann | 060960-5014-US                 | 7926             |
| 28977 7590 03/09/2007<br>MORGAN, LEWIS & BOCKIUS LLP<br>1701 MARKET STREET<br>PHILADELPHIA, PA 19103-2921 |             |                       | EXAMINER<br>SHAFFER, RICHARD R |                  |
|   |             |                       | ART UNIT                       | PAPER NUMBER     |
|   |             |                       | 3733                           |                  |
| SHORTENED STATUTORY PERIOD OF RESPONSE  |             | MAIL DATE             | DELIVERY MODE                  |                  |
| 3 MONTHS  |             | 03/09/2007            | PAPER                          |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

**Application No.**

10/809,768

**Applicant(s)**

ZWIRNMANN ET AL.

**Examiner**

Richard R. Shaffer

**Art Unit**

3733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) 4-10, 14, 15, 23, 25 and 27-49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 11-13, 16-22, 24, 26 and 50-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 55 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The application as originally filed does not support the language/limitation of "said plate **is at least about three times** said width of said recessed region." Merely stating two "typical" sets of values that happen to have what otherwise is an arbitrary ratio (given that the specification states no reason to design the plate in this manner) does not support claim language of at least three times. This limitation further includes values below three as well as being open-ended therefore including values up to infinity. Clearly, such a range is not disclosed in the application. Applicant is encouraged to rather claim the measurements stated in the reply filed on January 8<sup>th</sup>, 2007 in place of the unsupported range or to remove the limitation altogether.

Art Unit: 3733

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 16, 51 and 53 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitation "top surface **recess** region" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 16 recites the limitation "said recessed **portion**" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 51 recites the limitation "said **recessed region**" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 53 recites the limitation "said **groove**" in line 1. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

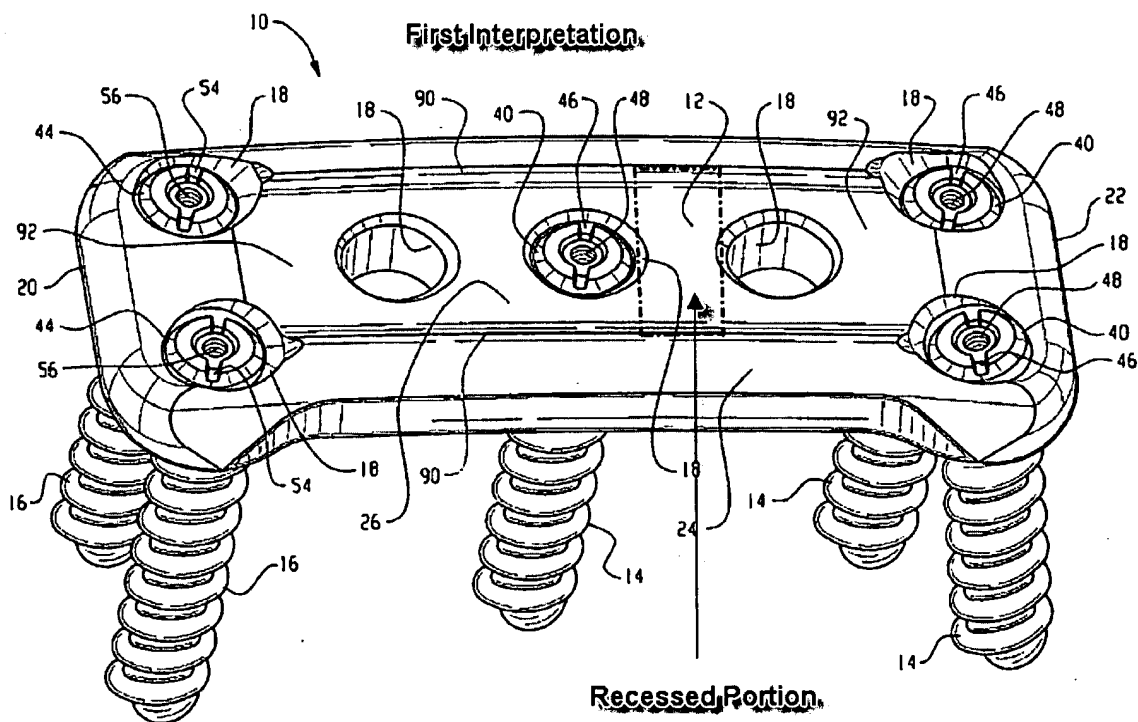
Claims 1-3, 11-13, 16, 17 and 50 are rejected under 35 U.S.C. 102(b) as being anticipated by Eisermann et al (US Patent 6,342,055).

Art Unit: 3733

Eisermann et al disclose a an straight elongate bone plate (**Figure 1**) comprising: a top surface (**90**); a bottom bone-contacting surface (**28**); two countersunk fastener holes (**18**); the countersunk holes having a first inclined wall (**34**) and a second inclined wall (**36**); and the corner of the plate between edge (**24**) and top surface (**90**) is chamfered (see **Figure 5**).

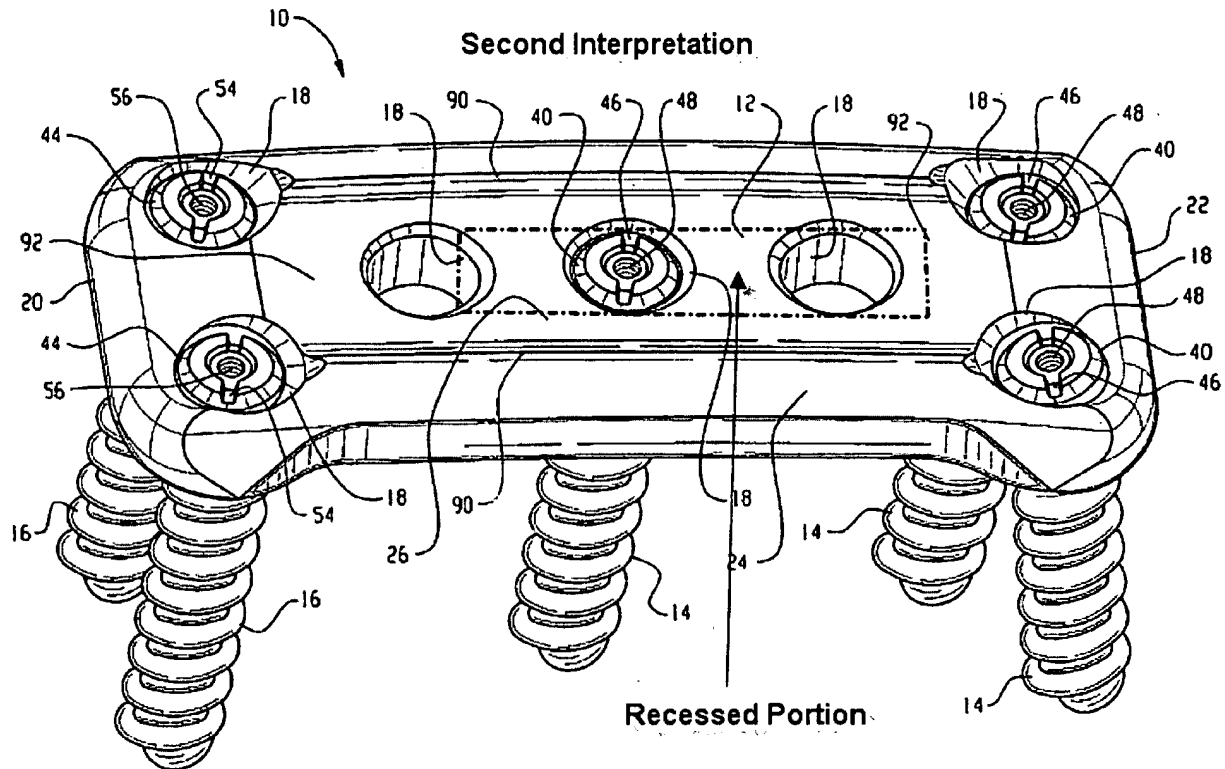
Eisermann et al further disclose a "recessed **region**" in the top surface (**90**):

**[First Interpretation Shown Below]**



The recessed portion/region has a width no more than a diameter of a countersunk hole (**18**); intersects both countersunk holes (**18**); and has a shape selected from the group of V-shaped, concave-shaped, and U-shaped.

Art Unit: 3733

**[Second Interpretation Shown Below]**

The recessed portion/region having a width no more than a diameter of a countersunk hole (18); intersects both countersunk holes (18); has a width about 1/3 of the width of the plate; and can arbitrarily have a cross-sectional area selected from the group of V-shaped, concave-shaped, and U-shaped because applicant merely states "region" in the claim language.

In regard to claims 12 and 13, applicant did not specify how the angles were being measured, thus according to "an" axis and method for measuring angles, one could arrive at the limitations set forth in claims 12 and 13.

Claims 1-3, 11-13, 16, 17, 20-22, 24, 50 and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by Needham et al (US Patent 6,533,786).

Art Unit: 3733

Needham et al discloses an elongate bone plate (**Figures 4d/e/f**) having a side edge chamfer (element **40** as labeled in **Figure 3**) comprising: at least two countersunk fastener holes (i.e. **32e, 38e**) having two walls with different angles (as clearly shown in **Figure 1**); and a concave/u-shaped/v-shaped recessed region/groove (**39f**) intersecting at least two countersunk holes, having a width about 1/3 that of the plate, and having a width no more than a diameter of a countersunk hole.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18, 19, 52, 53 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eisermann et al in view of Cooper et al (US Patent 6,093,201).

Eisermann et al discloses all of the claimed limitations except for the plate being made of a resorbable material and the material selected from the group consisting of 70/30 poly (L, D/L-lactide) and 85/15 poly (L-lactide-co-glycolide).

Cooper et al teaches (**Column 1, Lines 13 through Column 2, Line 5 and Column 6, Line 51 through Column 7, Line 45**) the use of resorbable materials, such as 85/15 poly (L-lactide-co-glycolide) copolymer, for a resorbable bone plate. Resorbable plates allow bone tissue to replace the material of the plate avoiding subsequent surgery. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the plate of Eisermann et al to be made of a

Art Unit: 3733

resorbable material to allow the body to generate natural tissue and to avoid subsequent surgery to remove the plate. It would have been further a mere design choice as to what material would be used as taught by Cooper et al including 85/15 poly (L-lactide-co-glycolide) for a resorbable plate.

Claims 18, 19, 26 and 52-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Needham et al in view of Cooper et al.

Needham et al also fails to disclose a plate being made of a resorbable material and the material selected from the group consisting of 70/30 poly (L, D/L-lactide) and 85/15 poly (L-lactide-co-glycolide).

Cooper et al teaches (**Column 1, Lines 13 through Column 2, Line 5 and Column 6, Line 51 through Column 7, Line 45**) the use of resorbable materials, such as 85/15 poly (L-lactide-co-glycolide) copolymer, for a resorbable bone plate. Resorbable plates allow bone tissue to replace the material of the plate avoiding subsequent surgery. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the plate of Needham et al to be made of a resorbable material to allow the body to generate natural tissue and to avoid subsequent surgery to remove the plate. It would have been further a mere design choice as to what material would be used as taught by Cooper et al including 85/15 poly (L-lactide-co-glycolide) for a resorbable plate.

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.



Art Unit: 3733

**Conclusion**


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard R. Shaffer whose telephone number is 571-272-8683. The examiner can normally be reached on Monday-Friday (7am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Richard Shaffer  
March 3<sup>rd</sup>, 2007



EDUARDO C. ROBERT  
SUPERVISORY PATENT EXAMINER